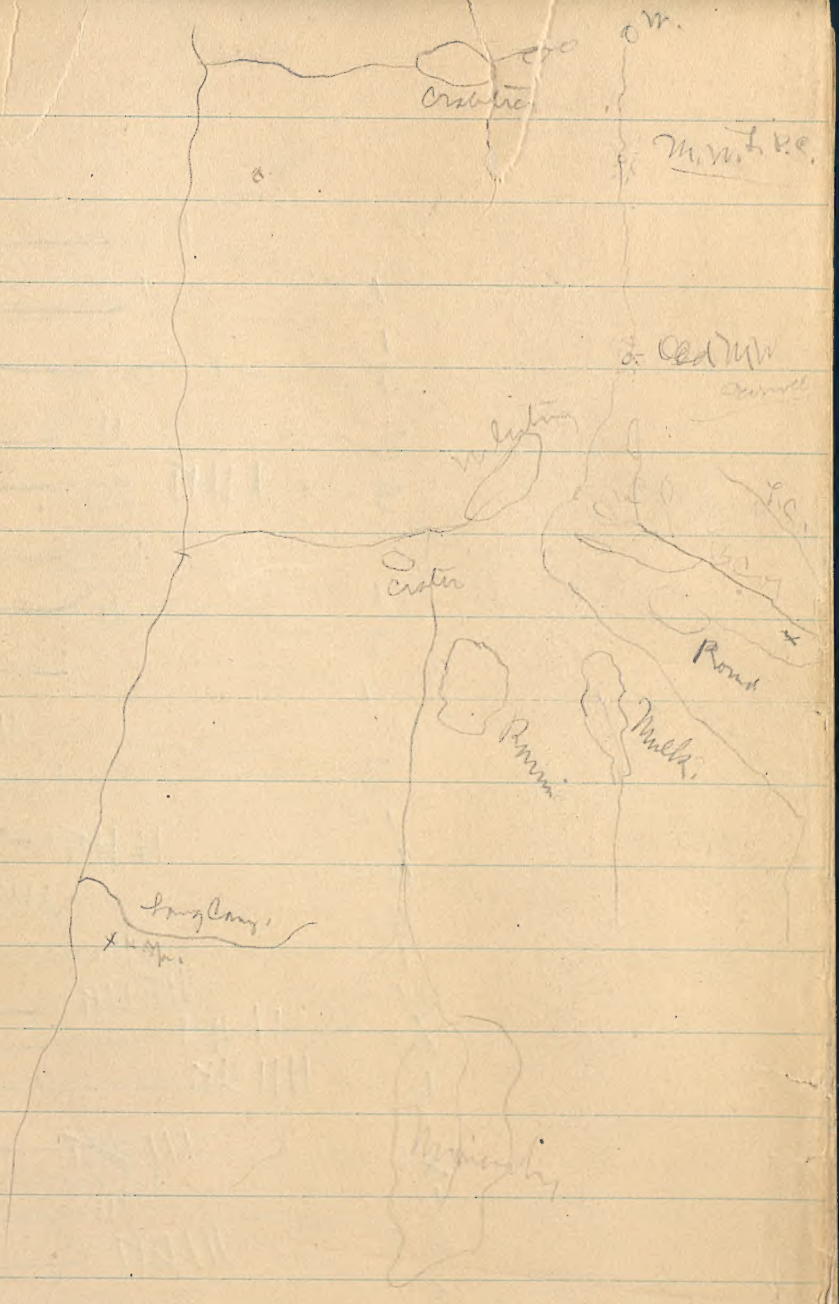
Crater
Road
Creek

Scirpus ~~IIII IIII~~ — 10

Ranunculus ~~IIII IIII IIII I~~ — 19

~~Helo~~ agrostis ~~IIII~~ — 4

Alsine ~~IIII I~~ — 6

Cirsium ~~I~~ — 3

~~Cirsium~~ ~~IIII III~~ — 8

~~Juncus~~ ~~III~~ — 3

~~Agrostis~~ ~~I~~ — 1

Scirpus ~~IIII~~ III — 8

~~Ranunculus~~ ~~IIII IIII~~ — 9

~~Helosciadium~~ ~~IIII II~~ — 7

~~Helosciadium~~ IIII IIII — 10

~~Ranunculus~~ I — 1

Alsine IIII — 5

~~Ranunculus~~ IIII II — 7

~~Ranunculus~~ I — 1

~~Juncus~~ II — 2

~~Ranunculus~~ I — 1

~~Eleocharis~~ II — 2

~~Cardamine~~ I — 1

~~Ranunculus~~ IIII I — 6

~~Ranunculus~~ II — 2

~~Scirpus~~ I — 1

~~Veronica~~ I — 1

~~Helosciadium~~ I — 1

Mammals of Palm Springs

1 Dipodomys merriami - Said to occur in the foothills & Pinon belt.
2 Ortogeomys c. nelsoni — Taken occasionally in the hills near town. Rare.
3 Perognathus longimembris — Abundant everywhere, especially about the mouths of cañons.
4 S. leucurus. Common on the sandy flats but not found away from them nor the foothills as the last.
5 S. g. filiorum - A few seen by S.C. Evidently a straggler from the coast following the foothills.
6 Peromyscus ex. gambeli. Common about the cañons but not on the desert
7 P. insolatus - Not common on the mesas bordering the foothills about the rocky washes of streams in belts where the large cholla, O (mariola, cactus)
8 P. eremicus - The commonest mouse not taken often on the open desert but abundant about the lower slopes of the foothills.
9 Neotoma bella - Abundant about the slopes of the foothills nesting in rock piles and about bushes.
10 Thomomys perpallidus - Common about the gardens & also on the sandy desert.
11 Dipodomys m. similis - The most abundant mammal on the desert. Extending into the cañons & on the slopes of the foothills apparently ranging as far as the creosote bush or just beyond.

Dipodomys deserti - Not abundant also not easily trapped. Large burros of this form however common on the open sandy desert where it does not leave.

13 Perognathus ~~fasciatus~~ formosus - Common in the large chollo belt near the base of the foothills in rock situations. Not found on the open desert. Taken up Palm cañon quite a distance ranging about as far as Dipodomys mer. pallidus.

14 P. penicil. angustirostris - A few taken on the desert but not common. Does not occur on the slopes of the foothills but apparently extends up like Dipodomys deserti to the lower levels of the desert.

15 P. spinatus - A few taken about the base of the foothills in the large chollo belt + in the cañon mouths.

16 Lepus cinereus - Said to occur in the hills. Perhaps it does higher up in the Pinon belt. None seen nor any pills or trails observed anywhere, occurrence doubtful.

17 L. cop. deserticolus - a few seen but not common anywhere + hard to obtain.

18 Felis r. rufina? - Said to occur.

19 Canis - A few heard & some tracks seen.

20 Urocyon c. calif. - A skull found in the foothills + tracks seen about the cañons. Evidently straying down the mts. to the edge of the desert.

21 Procyon l. psora. - One taken. Tracks seen in all the cañons containing streams.

22 Mephitis Said to have been shot. Only one instance known

23 Spilogale - Said to be tolerably common. Shot often about the town. Evidently wander in from the cañons.

24 Pipistrellus hesperus - Abundant about the cañons. A few seen near the village.

25 Myotis lucifugus occultus - Not rare in Palm cañon. Not noted elsewhere. They may occur only in Palm cañon where hiding places are afforded by such vegetation. Indeed this cañon which is without palms lacks this bat.

26 - Nyctinomus ~~Antrozous~~ femorosaccus - A large bat seen in Palm cañon somewhat larger than the above.

Reptiles - Should collect to report many species yet.

1 Uta stansburiana - Common
2 Callisaurus vent. - A few seen, two shot.
3 Phrynosoma platyrhinos - Two taken
4 Sceloporus - One taken at Palm cañon in a rock burrow
5 Crotalus cerastes - Said to occur.
6 Cnemidophorus tigris - One seen by V.C.

Trees + shrubs of Palm Springs Region

1 Cereus engelmani — Common on rocky mesas
2 Echinocactus wiz. Ecconti — " " hillsides bordering the desert.
3 Opuntia basilaris — A few seen near the foot-hills
4 O. echinocarpa — Abundant on the flats near the hills
5 O. (Mostly scopten (large) Cholla) Found only on rocky mesas bordering the foothills.
6 Yucca mohavensis — A few seen, mostly small; rare here.
7 Y. whipplei — One dead stalk seen near Eden.
8 Desert — The most abundant bushy everywhere in the desert + entering the canons a little way.
9 Desert willow — Abundant in the washes everywhere from the canons to several miles in the desert.
10 Mesquite — Common about washes + in the mouths of canons.
11 Acacia — Common in same situations as mesquite.
12 Senora brush — Common in dry washes, away from the hills.
13 Hesperi — A few seen near the village
14 Acacia (Bush pea) Common near Palm Canon
15 (Salvia) Common along washes
16 White-sage composita. Common.
17 Lycium — Common near canons
18 Prunus — Thorny — Common in canons
19 Washingtonia — Found in most of the canons south of village.
20 Populus — Common as above,
21 Platanus " " "

22 Juniperus — one seen in Tahquitz Creek
23 Baccharis — Com in creeks
24 Salix — Com " "
25 Alnus — A few seen at W Whitewater
26 Agave deserti — Said to occur up the Palm canon a little way
27 Screw bean Mesquite — A few seen in Palm canon.

Trees + shrubs about W Whitewater

1 - Alnus — Common on irrigating ditch + creek not going further into desert,
2 - Yucca mohav. Abundant
3 - Mesquite — " near water courses
4 - Desert Willow — Seen in water courses
5 - Acacia greggi Abundant
6 Willow Salix "
7 Populus fremonti — Common.
8 Baccharis — "
9 - Opuntia echinocarpa Abundant
10 - Hariota salsola — Winter — Spr. "
11 - Ephedra nevadensis "
12
13 Echinocactus polycephalus — abundant
14
15 Baccharis — Comm.

Camped near Chuck Warren's place in the cañon caught several Onabongo [illegible] + Perognathus baileyi & P. - - also Peromyscus medius, sonoriensis, + insolatus.

3 Mar. Left Chuck Warren's for the well where we camped aba spring about 2 miles S.W. abedge of scrub-oak belt. The first live yuccas were seen about a mile west of the Pass, near on hills as far as the cañon of Little Morongo Creek. A few Y. mohavensis seen with leaves 3 ft long, the yucca does not appear to go much farther than the Pass

4: Rained most of the day.

5: Left Warren's with for Old Woman's spring but missed the lower road + returned up the mountain to Burro Canyon + down Rattlesnake Canyon. The Creosote bush stopped at head of wash leading to the Pipes at about 4000 ft. At the mouth

6: of Burro canon at 5000 ft, were chollas + desert willow + also chia. Caught Peromyscus insolatus, P. sonoriensis & P. tex. to medius. Perognathus baileyi, Dipodomys merriami + Onabongo. Saw on Jack Rabbit. At mouth of cañon shot Gambel quail which were common, was surprised to find them common at this altitude. A long grove like leaved yucca began here + were occasionally up the canon. At the top of the grade about 6000 ft Mound Spring, 1 mile + large flat covered with the yucca, des. chollas + atriplex. The largest bunch of yucca seen here, one measured 4 ft. a few above base. Several Sper. dens. seen on the flat which is perhaps their upper limit. They evidently extend as high as the chollas on which they feed. Burrows of Dipodomys were also noted. Perhaps all the species seen at Burro Canyon extend up to the flat. The vegetation down Rattlesnake cañon was chiefly Prunus + scrub-oak, desert willow + cottonwood. The two latter seen also at Mound Spring. The creosote bush was seen as far up as 4500 in Rattlesnake cañon, the Nemagina seen after leaving Morongo valley.

Mammals of Morongo Pass

1 Odocoileus hem. - Probably common in hills about Pinon + oak timber. Becoming rare.

2 Ovis nelsoni - In summer time they range into the hills on southern edge of the valley.

3 Spermophilus lateralis - abundant, but probably near upper limit.

4 S. g. fisheri - Not rare. But hibernating at this season

5 - Peromyscus tex. medius - Abundant.

6 P. sonoriensis - Most abundant mouse

7 P. insolatus - Two taken in cañon.

8 P. (leucopus?) , One taken, size of P. nasutus.

9 Neotoma bella - Abundant.

10 Thomomys cal. - One taken, common

11 Dipodomys mer. pinetis - abundant but seem to be upper limit. Apparently follow Creosote belt into Spermophilus lateralis,

12 Perognathus baileyi - A few taken in cañon. Prob. lower limit. Evidently confined to Juniper belt or some limit zone.

13 P. - A few taken in cañon

14 Lepus californicus - Several seen. Size considerably larger + brown than coast brush rabbit.

15 L. tex - desert. A few seen; brown than those noted on Palm Springs.

16 Felis A. cal. - Taken occasionally

17 " concolor; rare, mostly below its range

18 Canis
Common.
19 Urocyon — Vol. common. Use shell pen.
20 Mephitis - Common.
21 Taxidea — Uncommon.
22 Spilogale — a few seen.
23 Microtus calif
A "water gopher" said to occur near banks which is probably this animal. Rare.

Una - Haggett's Cal.
Coloration in life — large male
The backs marked irregularly with black forming occilated spots of the light brown ground color, the rings of the spots black bordered with bright ferruginous which color also borders the black blotches
The head anterior to the parietal plate dusky brown more obscurely mottled irregularly with dusky & ferruginous. Tail dorsally with the black blotches like ferruginous forming reticulations which fades ventrally. Thighs spotted dorsally with wash brown, the calf of the leg barred faintly with large dusky blotches. Fore leg like hind leg but paler & bars more pronounced. Sides of head blush spotted with walnut. Sides of body with a large black blotch medially, also one on the flank below the blush like the sides becoming somewhat purplish on the throat where bordered with black ant. throat faintly spotted with dusky. While lower surface parts of thigh & front light yellowish olive.
The tail annulated with two blackish bars or spots
The
The front of thigh & underside of tail brighter yellowish than the belly which is mostly light blush gray.
Stomachs contained sand flies or bees & male crickets

Trees & Shrubs of Morongo Valley

1 Yucca mohavensis — Abundant.
2 " arborescens — a few in eastern part,
3 Opuntia echinocarpa — Abundant.
4 " bigelovii — Seen on Coachella desert & also in the valley.
5 " bernardina engelmanni — A few seen in the canon.
6 Echinocactus — a few seen in canons
7 Cereus — Common,
8 Mesquite — Abundant.
9 Desert Willow — Common
10 Screnbean Mesquite — Common.
11 Salix — Common.
12 Populus "
13 Scrub oaks. On hills,
14 Juniperus — Comm. in canon.
15 Fraxinus — " " "
16 Baccharis — "
17 Creosote — abundant throughout valley,
18 Palochia — "
19 Opuntia
20 Rhus ovata — Com in dry canon
21 Pinyon - Abundant in hills
at 3500 ft above

Opuntia basilaris was common at 6 ozofts at Mound Spring
Op. ramosissima was common at most of Rattlesnake
a flat leaved opuntia Lat 30. ... Glen between Burns
Canyon. Cereus seen sometimes on trail.
arrived at Old Woman Spring at 2.00 P.M.
8: Remained one day at Old Woman Spring.
Camp many Perog. inter. two Peron. insidatus
+ Heteromys ... Jack rabbits appear in garden
every night but seldom seen in day. Two cotton-tail
ocan, Large Hesp. deserti + Spurm. tereti. mid to
ocan', The desert is covered by creosote mostly with
no cactus, atriplex common in lake beds. Very
few Yuccas. Grape vines common about Spring
9: Went to Rabbit Spring. On way over saw
a few groves of small Yucca and but no cactus
Rabbit Spring is in a flat filled with
atriplex bushes. Set 2 traps but camped only
3 Heteromys near. No Rabbits seen.
10: Arrived at Victor about 3:30 P.M. Set out
a few traps + camp Perog. inf. + fasciatus.
+ Peromyscus nasutus + P. ... + medius. + Neotoma
+ eremica
11: Arrived at Rio Grande in morning + camped
above the town in cottonwood grove.
17 Left Rio Grande. Camped near Point of
Rocks
18 Arrived at Barstow + camped in town
19 " " Daggett " " in corral
of Borax Co
Apr. 5 Mohave River so as to make
fording impossible so remained until
it lowered.
Apr. 8 Left Daggett + made about 10 miles
north. A few Yuccas seen near camp
at an elevation of about 2500 ft. Reptiles
abundant especially Phrynosoma. A spg
Heteromys taken. Two gophers taken on
loose black sandy soil. One taken near
its hole which was a wide shallow cave
about 2 ft. long + 1 ft. wide running obliquely
in. It was on the level mesa.

Uma - Daggett Cal. Large male
Coloration in life -
Habits - Acc. to J.C. Bury themselves in
the sand when pursued by shooting
beneath the surface. Sometimes the tip of
the tail remains visible. This habit perhaps
accounts for their living only in washes
where they can burrow. Since snakes, as
they are not protectively colored + live on
white sand they escape by this means.
Stomachs examined:
No 1 Leaves of Cryptantha large brown ants
2 " " " "
3 " " " "
4 " " ———————
5 - Caterpillars (smooth beginning) " " "
6 Several " " ———————
Uma seen several feet up on an oblique
branch of a desert willow evidently in search
of the young leaves which were just budding.
No 7 - Cryptantha leaves - caterpillars, striped bee
8 " " " "
9 " " ——————— " "
10 " " red ants
11 " " " "
12 " " " " leaves —
13 " " caterpillars
14 " " " "

Mammals of Mendocino Co. Cal.

1 Odocoileus hemionus = Deer now.
2 Ovis c. nelsoni
3 Antilocapra am. Extinct
4 Sperm. phillips beecheyi
Common. One taken.
5 S. gr. fisheri – Common. Two taken.
6 Peromyscus ter. sonomensis – Abundant near River, a few taken in hills above Victoria
7 P. insolatus – Abundant in hills among rocks. Not found in bottom land or on sandy plains, strictly a rock species. No. P. arenicola taken here, apparently these take their place
8 Reithrodontomys h. halicoetes Abundant in bottom about Microtus runways + rose bush thickets
9 Neotoma f. macrotis
Abundant in bottom.
10 N. desertorum
common in hills nesting in rocks + grass + weeds, Victoria
11 Microtus ? scirpensis ?
Common in meadows,
12 Thomomys perpallidus
Abundant in bottom, mound seen also on mesa
13 Dipodomys ner.
Abundant on mesa + less so in bottom
14 Perognathus fasc. bangsi —
A few taken on a slope on mesa between brush. Rare, Two taken
Victoria-3

15 P. mont. olivaceus ?
The commonest mouse in rocks + on mesa.
16 P. pencil.
Common in hills among rocks Victoria-2
17 P. stephensi ?
a few taken in bottom. Rare
18 Lepus c. bennettii
Common in bottom apparently this form. but not in hills. Smaller than the coast form.
19 L. tex. deserticola.
Several seen. Not common.
20 Felis r. calif.
Said to occur.
21 Canis –
Not common,
22 Urocyon –
Said to occur
23 Procyon l. hernandezi
Not common. One taken.
24 Taxidea.
Rare.
25 Mephitis calif.? Not. com. in bottom. Like this form but white stripes extending on tail as in M. occidentalis
25 Spilogale
Three taken by a rancher, only one known,
Rare
26 Putorius ? arctic.
Said to occur rarely.
27 Bassariscus astutus –
common. One taken
28 Vulpes macrotis – The commonest fox – called Swifts
29 Dipodomys deserti – Probably occurs.

Trees & Shrubs of Rio Grande

1 Populus fem. Abundant.
2 Salix "
3 Prosopis juliflora Mesquite — a few seen
4 Artemisia tridentata — a few thickets in bottom
5 Compositae (Old Man) Abundant in "
6 Cressotz " on hills
7 Yucca arborescens — a few in hills, not seen below this point.
8 Yucca radiosa. — Common in places
9 Opuntia echinocarpa — Not common
10 " rotundata — " "
11 " basilaris " "
12 Cereus engelm. — A few in hills
13 Echinocactus " " " "
14 Hesperaloe parviflora a few in washes
15 Ephedra Common
16 Atriplex "
17 Baccharis "
18 Pedalium murex "

No. 1

Coloration of large & Uma. Above cream colored, blotched with irregular black blotches forming occellated spots with black centers & ferruginous, the black irregular bordered by ferruginous. Anterior part of sides & third dorsal spots without occellations, the dark spots becoming brownish. Head above light brownish banded irregularly with dusky, tail above sandy yellowish brown, without occellations, anteriorly with black reticulations which give way to rusty markings which are continued along median line to the tip. Throat large spotted with black & rusty markings sandy yellowish brown, which disappear on head.

Thighs brown & the rusty spotting on leg. sandy brown, calf very faintly spotted with dusky & foot same. Sides of head spotted like upper sides of body with a large irregular black spot & black spots of same before thigh; thighs anteriorly light olive becoming golden distally behind there a small black spot with golden black surrounding it. Sides of tail golden olive, golden olive spots on the posterior part of which. Throat olive rusty fore throat dusky bordered on a whitish ground. Throat with arrowhead black bars; fore part of chest behind collar spotted with olive black. Belly & chest whitish; hind legs below same with a light olive wash, a blackish black below beginning of femoral pores a cashoidz tail below dusky olive, near tip crossed by black bars.

Mammals of Haggett

1 Canis
a few said to occur in Ord Mts + adjacent canon where the Mohave rises on a reef of rocks.

2 Spermophilus leucurus
abundant everywhere

3 S. mohavensis — the most common in the wash of the river living in holes about the clumps of desert willows. Not found away from the wash or white sand areas.

4 Amphispiza b. leucophaea
One taken in brush

5 Mus musculus
Abundant about the houses, several taken

6 Dipodomys deserti
Abundant in the wash but not elsewhere.

7 P. mex. rufinus
Common everywhere.

8 Perognathus spinatus.
Several taken on mesa + one in the wash. Apparently more common than at Ord Mts.

9 P. m. roliveaceus —
a few taken on mesa

10 P. stephensi
One taken in wash

11 Lepus b. deserticolus
a few seen

12 L. a. texianus
Said to occur about the ranches.

13 Vulpes macrotis
One seen
Common. Usually occur in pairs.
4 taken. Called Swifts

14 Canis
A few heard, said to get common in the summer. Much rarer than normal. Perhaps due to the Vulpes which are swifter & more destructive to the same kind of prey.

15 Procyon
Tracks seen along the ditch.

16 Taxidea —
Said to occur — No signs seen

17 Pipistrellus hesperus —
Two taken, — common

18 Perognathus amplus
Two taken

19 Dipodomys merriami
Two taken along canal

20 Myotis
One seen

Vegetation about Daggett

1 Opuntia fem. a few near wells.
2 Chilopsis abundant in wash.
3 Cressote — com. everywhere.
4 Opuntia echinocarpa — a few seen only
5 " ramossima — not common.
6 Baccaris — a few in wash.
7 Yucca mohavensis — a few on mesa
8 Coryphantha vivipara Abundant
9 Salix common along ditch
10 Echinocactus - Several seen on mesa
11 Cereus - " " " "

Reptiles of Daggett

1 Callisaurus — Abundant, especially in the wash.
2 Uma — Not common in the wash but seen nowhere else.
3 Uta stansb. — Several taken on mesa
4 Sceloporus biseriatus — One seen on desert willow in wash.
5 Sauromalus — Said to occur, common.
6 Phrynosoma Solaliphinos — Two taken but not common.
7 Crotalus cerastes — One taken near wash at dusk. No tracks seen.
8 - Ophibolus — Said to occur but not common. 6 taken north of the town at 3 000 ft.
9 - Clemmys marmorata

The tracks of are seen in the mud of the ditch. Said to be common in the fish ponds.

Apr. 9: Made Lane's Mill. The yuccas became very abundant near 2500 ft at 3 500 ft & continued to near the mill. Two lizards taken above our last camp. They apparently do not go out of the sandy soil above 3 000. The tracks of one was seen near the mill where they occur along the eastern edge of the valley & about the dry lakes. Xantusia common beneath the yuccas. Several spp. stumped Crotalus cerastes & Solaliphinus taken on black soil near the lakes. A few Sceloporus magistri seen in the yucca belt

Apr. 10 Stayed at Copper City which was found deserted. It is at an elevation of about 4 200 ft. Not only a few yuccas occur on this side of the valley. The creosote is common about the camp.

Apr 13: Left Copper City & made a camp within 7 miles of the Willow Spring. About the Pilot Knob quite a scattering growth of the yuccas occurred. Copper City is evidently just below their limit as it is on the southern exposure Several sceloporus magistri seen near the Knob. The Knob is of porphyry of a purplish color but the range which it terminates is of granite. This used to be a favorite place for sidewinders which must be abundant here up as high as they occur (5,000).

Apr 14 Reached Tom Willow Spring. The vegetation about the spring consists of creosote, burbeota, a few cholla & cereus with many Opuntia basilaris. Altitude about 2,500 ft. Camped. Peromyscus eremicus, Neotoma bella, Perognathus longimembris & Perognathus olivaceus. Very few rabbit signs seen. Reptiles abundant. Took several Crotalophorus tigris, Uta stansburiana, Callisaurus ventralis, & two Pituophis catenifer deserticola, one in a Neotoma nest & the other in a Perognathus longimembris.

Apr 15 Left Tom Willow & camped at Mineral Hill Mill in a steady rain. No yuccas seen along the road. Eumeces, Dipodomys deserti common in sand dunes at head of lake.

Apr 17: Went in to Ballarat & made camp in a tank.

Apr 19: Left Ballarat for Furnace Creek but missed the road & landed in Amber Cañon where we camped.

Apr 20: Left Amber Cañon & made to the top of the pass on Wild Rose road. At Wild Rose met a few Indians & a man named Kennedy. At Perognathus flat where we camped were a few yuccas & on the hill, north-east, was a heavy growth. Creosote continued to near the summit perhaps 4500 ft. The flat at the summit was mostly spiny Atriplex & Coleogyne

Apr 21 Arrived at Emigrant Spring at noon & descended to edge of Mesquite Valley. Creosote in full bloom & Menodora also. Two desert willow occur on the desert. Cnemidophorus common at Emigrant Spring. At Perognathus flat noticed for first time burrows of Perodipus & Dipodomys. Caught two; holes were all in colonies & only in flat & rocky side hills. They were difficult to catch & colonies were rare. Gopher perhaps down to or below 4000 ft. Many Prog. Joan. taken.

Apr 22: Made Stove Pipe Spring & let animals feed on the succulent bunch grass. In P.M. went up the valley & camped at a spring (Tamarisk Spring) 12 miles north. Shot two Myotis here. Saw several others. Succulent & Bouteloua grass & reeds everywhere.

Apr 23: Went south to a few miles north of Furnace Creek.

Apr 24: Made Furnace Creek & camped at the Ranch. The Uta stansburiana taken near the ranch on alluvial soil are different from those seen elsewhere. The ♀s are usually reddish in the mandible with the throat yellowish or light olive while in U. stansburiana they are whitish or slaty. The ♂s are not very different.

Apr 29: Left Furnace Creek for Mesquite Valley; on way up stopped at Salt Creek & caught a few fish in the stream. Camped at ~~a spring 3 miles north of~~ Stove Pipe Springs & set traps in Mesquites in sand dunes

Copper City - Mammals.

1 Spermophilus lateralis - a few seen.
2 Perognathus parvus.
Very abundant. Nearly every trap set at box of creosote bush caught one of this species. Not found on abundant mesquite flat [illegible] Tonner Mill Com
3 P. m. olivaceus
Abundant in the rocky hills to which they are confined while the P. parvus lives on the gravelly flats & sloping mesas.
4 Lepus tex. texianus.
7 or 8 taken but most of them shedding & unfit for specimens.
5 Vulpes macrotis
2 small ♀ taken
6 Thomomys perpes.
One taken. Not common.
7 Peromyscus eremicus
common about the buildings
8 P. tex. mes. One taken.
9 Neotoma desertorum
common about the buildings
10 Onychomys Tonner Mill.
No Dipodomys nor Sciurotamias seen although may occur here.

Reptiles about Tom Wilson Spring.

1 Callisaurus ventralis
Common in the rocks
2 Crotaphytus baileyi
Several taken on the rocks
3 C. wislizeni
One taken on the rocks. Seen several but not common.
4 Phrynosoma platyrhinos
Abundant everywhere on mesa.
5 Sceloporus magister
A few seen on the rocks
6 Uta stansburiana
Common
7 Crotalophorus tigris
Several taken about the head of the canon in the rocks. Not common.
8 Pituophis catenifer deserticola
Two taken. One in Neotoma nest & another in Spermophilus lateralis burrow.

Mammals of Death Valley

1 1 Cris. nelsoni – Said to occur common in the mid-summer about the springs & tanks in the hills, especially concrete Furnace creek.

2 2 Sparmophilus leucurus – Not seen about the ranch. Several seen near Stove Pipe Spr.

3 3 S. ~~leucurus~~ ?
Several seen & many heard whistling near the mesquite trees on the ranch. Very difficult to trap, perhaps on account of the trapping done by the Indians who set dead falls everywhere.

4 Perognathus ordi ?
Probably common about the ranch. Apparently larger & grayer than specimens taken on trip north.

5 P. ter. desert.
a few taken.

6 Neotoma desertorum
Common in the mesquites. Think the same form ~~take~~ first taken at Lone Willow Spr. Indians eat the cakes fill the medicine.

7 & Eroognathus m. olivaceus
Abundant everywhere.

8 Thomomys mer.
A few taken. Some very bright reddish.

9 R. desertí
Abundant everywhere. This is known as the Mesquite rat. The Indians bring in their tails for bounty, a gum gathered from the mesquite from the wounds made by an insect. This is eaten by the Indians. Large stored mesquite beans are taken from their burrows by the Indians.

10 Lepus ~~arizonae~~ ?
Common; 11 taken. Smaller & redder than those secured at Ora Grande.

11 L. ter. desert.
A few ~~egg~~ seen & one photographed. Not common.

12 Vulpes macrotis –
Said to occur, mostly in the hills about Beatty.

13 Canis
A few tracks seen & one heard.

14 Felis sup. –
Said to be tolerably common (Kennedy)

15 – Mustela cal,
Federal taken at Furnace Creek Spr. Seen about Furnace Creek.

16 P. pricei ~~elusus~~
Seen at Furnace Creek but not taken.

17 Perognathus plectilis
One taken about Stove Pipe Spr. in mesquite thicket.

18 P. penicil.
Two taken in Mesquite Valley

Apr 30 Set out 75 traps but 2 wagon only one Perog. stephensi & one P. penicillatus & a Dipo. men at a Spring 3 miles ~~upon north of Seven~~ - pifon

May 1 Crossed Mesquite valley & camped on western edge to set traps. Caught one Perog. penicillatus. Made Emigrant Spr. at 3 P.M.

May 2: Left Emigrant Spr. & camped at Wild Rose Spr. where we broke a wagon wheel.

May 3: Went to Ballarat for new wheel & supplies.

May 4: Returned to Wild Rose Spr. where we trapped for several days.

May 9: Left Wild Rose for Hanaupah Canyon. Camped at Gopher Spr. & caught several Peromyscus & big-ears but ~~not~~ over elsewhere.

May 10: Arrived at Hanaupah Canyon at ~~South~~ fork at an old garden.

May 12: Left Hanaupah & returned to Gopher Spr. to trap.

May 15: Ascended Telescope Peak with Kennedy but the day was very windy & cold & no view of surrounding was possible. We crossed the middle fork on hard limestone ledges & shale at about 9000 ft which continued to the summit where it was apparently mostly slate.

May 16. We went to Wild Rose & shinned specimens. On way over got into a light snow storm. One of Son. went to Ballarat

May 18: Left for Coal Kilns where we arrived at 4:30 P.M.

May 19: Snow all P.M.

May 22 Left Coal Kilns for Wild Rose Spr. where we camped one night.

May 23: Arrived at Ballarat at 9:30 P.M. from Wild Rose Spr.

May 27: Left Ballarat & camped about 15 miles out of town in mouth of Shepherd Canyon. Set out a few traps but caught only a few Perognathus & Dipodomys. Shot several D. spectabilis & one large gray Neotoma? Saw many large Anthozoans & regretted ~~that~~ we could not get them. Gopher work seen on flat near mouth.

May 28: Ascended canon & crossed the valley near Junction & camped in South Coso Mts near Bryan Mine. Tree types, Arbutus, Coleogyne, etc all through this region. Many burrows Perod types (Dipodomys) seen but no traps & caught several Perodipus but only eaten several Peromyscus gambeli & two P. eremicus high up in pinyons. Neotoma desertorum - one Spermophilus beecheyi & Spermophilus grammurus - yes. First rock squirrels seen, probably leptodus. Gopher work common Lepus 4 - Lepus arizonae - smaller, less shaley than Death Valley sp. A good many Pinyons on the summit but no Juniper or Perod. teeth found. Perhaps due to lack of Juniperus.

May 29: Camped at Coso Springs. Heard Dipodomys drumming. Anthozoans in tracks but saw none at night. Set out traps & caught one Perodipus panamintinus, one Dipodomys, Neotoma desertorum & two Spermophilus beecheyi. Gopher work

Reptiles of Death Valley

1- Sceloporus occidentalis
Said to occur on the dark mesa slopes of the Funeral Mts bordering ash meadows. Now in the Valley anywhere.

2- Callisaurus ventralis
Abundant everywhere.

3 Uta stansburiana -
Common about the sand dune country living in the mesquite thickets. Often seen on the limbs eating the foliage.

4 Uta stansburiana -
abundant everywhere in rocky ground & about the Furnace Creek ranch where they were darkest colored than any seen elsewhere.

5 Phrynosoma platyrhinos -
abundant on the gravelly washes.

6 Savannicola -
One taken at base of Tucki mt on edge of Mesquite Valley.

7 Cnemidophorus tigris
Only one seen.
Common about the sandy flats.

8 Crotalus cerastes -
Two taken at Mesquite Valley where they were found coiled up beneath a mesquite. Found commonly about sand dunes in the mesquite thickets.

Vegetation of Death Valley

1 Prosopis pubescens - com. about Furnace Creek Ranch
2 Salix - Abundant about Furnace Creek & Texas Spring & on Cow Creek.
3 Prosopis juliflora -
abundant in Mesquite Valley & at Furnace Creek & mouth of Salt Creek.
4 Prosopis pubescens -
a few seen at Cow Creek & above Stove-Pipe in Mesquite Val.
5 Cressa abundant everywhere in limey marshes but not in alkali soil or flats
6 Opuntia basilaris -
a few seen on edges of the valley in hills.
7 Cereus engelmanni (Slimbery cactus)
a few seen in Mesquite valley.
8 Ephedra nevadensis
abundant about Stove-pipe
9 Atriplex red-leaved com
10 " gray - large bushes. "
11 Prosopis glandulosa
com at Furnace Creek & Stove-Pipe
12 Baccaris -
abundant at Furnace Creek & Stove-pipe
13 Salt grass - com in Death Val. a little in Mesq. Val.

14 Sporobolus airoides
Socalone (bunch grass) Com at
Slope - Spec & northward.
15 Eriogonum maritimum.
Cane - Comm. at Summerpass
Spr. Mesq. Val.
16 Pickle-weed - Com in lower
parts of Mesq. Val. growing in
strongly alkaline soil.
17 Yerba mansa - Spr. on Com
Creek
18 Tule - a few at Com Creek
19 Rushes Δ - Abundant at Com creek.

Mammals of Panamint Mts.

1 Ovis c. nelsoni.
Not rare but very hard to secure. Resident on the range. The Indians say that the horns of those are round or oval while those from Grapevine range & northward are rectangular. Both kinds however are taken in the range. The range usually inhabited about 7000 to 10,000 ft. They are said to come to the springs often in the night as the day. This may be due to the absence of flies on the nuts.

2 Spermophilus lateralis - abundant from base to 8000 ft. very common at 7500 ft. at Coal Kilns

3 Juniperus Sabina. Abundant from the lower edge of the Juniper (6000 ft) to summit of the range. Most of the specimens taken contained had juniper nuts in their cheek-pouches.

4 Peromyscus tex. deserti gambeli -
Com. from 4500 to nearly the summit. Very com. at 7,500 ft., rarer at 4500.

5 P. eremicus =
Common from 6000 to near summit, or perhaps lower. Very common also at Coal Kilns & Gopher Spr.

6 P. (large ears)
Confined to pine belt from 6000 to summit. Abundant at Gopher & Coal Kilns

7 P. rufinatus - One taken at Emigrant Spr.

8 P: sp. Prop. Com. at Wild Boar & Emigrant Spr.

9 Neotoma desertorum
Com. from base up to 9000 ft. on limit of Pinyons. Indians search nests for obsidian

10 Thomomys
confined largely to Pine belt. Most abundant near timber where the ground is perforated & tunnels driven below surface & runways. Old heads are found on the summit. Rare below 7,000 ft. One mound seen at Emigrant supposed to be a gopher but trap not disturbed. Obsidian flakes were seen below 7,000 ft. Work largely on shaley slides in heavy gravel. A few taken at Coal Holes

11 Perognathus flavus.
Found only at foot near Wild Boar from 4500 ft to 6000 ft. Mostly in colonies beneath bushes in stony soil. They reach down nearly to Emigrant Spr. to the south as far as Wild Horse Spr. but probably may go to Colorado beyond.

12 Dipodomys merriami
Perhaps enters the canons for a short distance. Not taken from any below Wild Boar or Hammond Wash

13 D. deserti —
Not found away from the Coal valleys about Sand dunes.

14 Perognathus fasciatus.
Abundant from Panamint Valley to 6000 ft. Apparently not extending eastward to Mesquite valley. Not taken at Emigrant Spr.

15 Perog. m. olivaceus. Abundant from both last named base to 7500 ft.

16 Lepus arizonae.
Not common. Several seen about Dripping Spr. & Coal Holes. Pellets seen on summit of the ridge. Many taken at Furnace Creek. Does apparently do not extend west to Panamint Valley.

17 Lepus texianus.
A few seen about Wild Boar. Pellets seen on mts. to 9000 ft.

18 Vulpes macrotis
One taken at Wild Boar. Said to occur at Emigrant also but not in the Pine belt much.

19 Canis —
Tracks seen about Wild Boar & a few heard.

20 Felis sp.
Not many rare. One old skull seen at Hammond's. The Indians distinguish two kinds.

21 Spilogale —
Several have been taken at Wild Boar according to Kennedy but none elsewhere.

22 Taxidea
Woods Badgers common on Sand-Dunes & north. Skull taken seen by Kennedy at Wild Boar Spr.

23 Pitpaisheltes
Comm. at Wild Boar,
24 Nuptis calif.
Com. at Wild Boar.
25 Myotamnus —
Said to occur by Kennedy

Lack Order —

Reptiles of P annamiticus,

1- Callisaurus ventralis
Occurs at mouth of canyon on sandy flats.
2- Uta ornata
Very scarce in Mesquite, Stucks at mouths of sandy washes,
3- Crotaphytus baileyi
Common everywhere on rocky ground from 4000 ft. to 8000. Does not seem much below Emig. Spr. on desert slope,
4 Crot. wislizeni
Much like the last.
One Crotaphytus with a large cranial osp. in stomach
5 Uta stansburiana
abundant from base to 8000 ft.
6 Phrynosoma platei
Com. from base to 7000 ft.
7- Sauromalus ater
Com. from base to 5000 ft.
Not seldom seen. Used as food by the Indians who say they usually get them by searching among rocks & pulling them out by inserting hook into their bodies.
8- Sceloporus magister. Seen about Sand Flat & near mouth of Coal Kiln Canon & near Wild Boar Spr. Not Comm.
9 S. biseriatus —
Common in the juniper belt from 6000 ft to 8500
10 S. graciosa —
Not seemed, one @ 9000 & others at 10,500
in Telescope Pk, Several taken at Coal Kiln

11 Ceanothus divaricatus —
abundant from base to 7500 ft.

12 - Ericaceae gilberti
Comm in Hammonds canyon
along the stream in the ~~dead~~
willow leaves about willow thickets.
Said to be poisonous by the Indians

13 Pilinophis c. deserti
Three taken at Wild Boar,

14 Bascanion c. flaviventris
Two taken at Wild Boar

15 Bascanion
One seen at coal Kilns & another
near Bophus Sp. by Kennedy.

16 Ophibolus boylii
One taken at Wild Boar,

17 Crotalus tigris —
Several taken at Wild Boar,

18 Xantusia —
Prof. Grinnell brought three
specimens north of Sandstone Peak.

Vegetation of Painamar Mts

1 Pinus monophylla —
Prevailing timber from 8500 to 9500 ft.
at latter elevation prostrate.

2 P. flexilis —
A few seen from 9000 to summit where
they become prostrate.

3 P. aristata —
The predominating tree about 9000
where they form forest on the north
& east slopes of Telescope not seen
below 9000 ft.

4 Juniperus calif.-utahensis —
Occurs from 6000 to 10,000 ft.
common at 6500 to 8000 ft.

5 Populus fremontii
Comm at base, a few seen
as high as 7000 at Hammonds,

P. ~~monilifera~~ tricocarpa
A few supposed to be this seen
on middle fork of Hammonds creek at
8500 ft.

7 Salix —
Abundant on all streams to 9500 ft.

8 Cercocarpus — Mt. Mahogany
Abund. about coal Kilns, from 7000 to
9000 ft.

9 Acer glabrum
along streams from 7000 ft to 10,000

10 Sambucus — ~~annulata~~
From 7500 to 9000 ft.

11 Amelanchier —
Abundant about upper springs at Coal
Kilns forming thickets 10 ft. high.

12 Spiraea ~~ipentuloides~~ seen at 8500 ft. on
Mid-fork of Hammonds Creek

13 Symphoricarpos —
Common from 7000 ft to summit.

14 Prosopis pubiflora
Seen as high as Hamoparé Garden & Sulphur Sp. below Wild Boar. 4000 ft. Upper limit.

15 Cercis —
Seen on flat above Wild Boar at 6000, below Emig. Sp. at Hamoparé Garden, Evergreen above Wild Boar up to 5000 ft.

16 Artemisia tridentata
Abundant from 6000 ft. to summit, forming thickets everywhere.

17 Ceanothus —
Common at 8000 ft. & above.

18 Ribes (yellow)
Com from 7000 ft to summit.

19 Cercis occidentalis
Com from 6000 ft to 8000. Fruiting carpidized.

20 C. Englemanii
Com from base to 8000 ft.

21 Echinocactus ~~roseus~~ Polycephalus
Com from 6 to 7500 ft.

22 Opuntia basilaris
From base to 8000 ft.

23 Opunt. (Tuna)
Seen only at Hamoparé Garden

24 O. rutila (long spined)
From 6000 ft to summit.

25 — Rosa
a thicket at Upper Spr. near Coal Kilns, also at Wild Boar Spr.

26 Ribes bilobata —
Common in the Pinyons from ~~5000~~ 6000 ft. to 10,000 ft.

27 ~~Hungia glandulosa~~ Carnegia mexicana —
Common about Hamoparé at 7000 to 10000 ft. In flower at Sulphur Spr.

28 Cleomella ramosissima
Abundant below the Juniper Belt for about 5 miles down ~~Wild Boar~~ Spr.

29 ~~Gilia~~ Hetrodymia spinescens
Common about the flat above Wild Boar up to the edge of the juniper zone. In flower.

30 Eriogonum inflatum
Abundant on flat above Wild Boar.

31 Polygonum
Abundant on flat above ~~Wild Boar~~ Spr.

32 Ephedra viridis
Common from Wild Boar Spr. to 10,000 ft.

33 Triglochin maritimum (Cane or arrow grass) — Forms a field on ~~sides~~ side hills at Hamoparé Ranch.

34 Elymus elimoides — Wild Rye Grass.
A patch seen on a flat at head of south fork of Hamoparé Canyon, also about spring at Coal Kilns

35 Clematis ligusticifolia
Abundant about the stream in Hamoparé Canyon & at the Upper spring near Coal Kilns

36 Aquilegia truncata — Common in pinyon belt.

'37 Argemone platyceras
Seed on grade going down into Hamospa canyon at the garden.

38 Rorippa nasturtium (Water cress)
Common at Wild Boar Spring.

39 Sphaeralcea munroana —
Common — from 3000 ft to 4,000 ft.

40 Vitis calif — Common at the stream in Hamospa canyon.

41 ~~Delphinium brevicaule?~~
A showy stemmed species with deep violet flowers abundant above Wild Boar in Tungsten canon.

42 Lupinus —
a perennial with gray foliage & large spikes of pinkish purple flower common in Hamospa canon.

rare but Perodipus abundant.

May 29: Camped at Crab Spring five miles north of Coso. Sam C. climbed the mountain to the summit but found no evidence of Yaniras. Juniper not abundant & Pinyon out of except high up. Tufts set near Juniper were not Spermophile burrows in sand wash ~~some~~ Perognathus flavus.

May 30: Left for Keeler where we arrived at 9 P.M., & camped near blacksmith shop on lake shore ~~among~~ on salt grass flat. Gophers abundant. also Dipodomys deserti & D. mer. nitratus. Carpet two Perognathus parvimanus. & the only reptiles seen were Cnemidophorus Callisanus & Phrynosoma. Spermophilus lateralis abundant but evidently no S. tridecemlineatus. Yucca arborescens comes to the small cotton wood by Keeler about 6 miles from town they could be seen opposite shelter on the mesa near Cerro Gordo & evidently follow the Owens Lake north. A considerable number of dead trunks turned over but no Yuccas found. It is evident that they do not follow the Yucca brevifolia but stop short of its northern range. Artemisia bush & Coleogyne abundant on coso flats, also burros & Perodipus paniculatus

June 4: Left Keeler & camped at Lone Pine at 5 P.M. above the ranches on Lone Pine Creek

14: Left Lone Pine & camped at Hopkins Ranch at foot of Hockett trail

16: Left Hopkins & took the Hockett trail to Big Cottonwood Meadows.

25 to ft Big Cottonwood Meadows & went to Cameron Meadows with L. Shepherd &

Mammals of Lone Pine Calif.

1 Odocoileus hemionus
Said to occur occasionally in foot hills of Sierras

2 Spermophilus g. fisheri
Common in the fields

3 S. lenarus —
a few seen & one caught.

4 Peromyscus (red)
Not common taken near the creek chiefly in small rat-like nests like those of N. desertorum.

5 P. sonoriensis ?
common in the sage brush or sandy ground,

6 P. tor. gambeli
Not common, a few taken near the creek.

7 Onychomys
One adult taken at the River,

8 Rhithrodontomys
very common in fields & damp meadows.

9 Neotoma f. dispar
Common about willow & rose thickets near streams.

10 N. desertorum ?
Common in the dry hills nesting in the rocks.

11 Microtus c. vallicola —
Abundant in swamps & along the river & borders of streams, not seen in hay fields like M. calif.

12 Thomomys = perpes
Abundant in fields. Probably grades into T. operarius near the lake,

13 Dipodomys m. nitratoides
Abundant in dry fields + mesas.

14 Perodipus panamintinus
Abundant about dry fields but less colonial than in the country east of here.

15 Lepus arizonae?
Abundant about fields + swamps.

16 S. tex. deserticola
Common on the brushy mesas.

17 Helis r. ~~californica~~ fergusonica
Said to occur about the mouths of canyons from the Sierra + occasionally at Tom's Pt.

18 Canis ochropus?
Said to be tolerably common, Apparently so,

19 Urocyon c. calif.
Said to occur rarely,

20 Mephitis ~~estor~~
~~Said to be~~ tolerably common. One taken.

21 Spilogale
Said to be as common as the last,
Tracks seen at the station

22 Lutra —
One instance of its capture near Saratoga

23 Putorius xanthogenys
Not common. Two taken,

24 Sorex arizonae
Said to occur in the swamps on Lubbock Creek,

25 Scapanus —
Several runways seen but none taken. Said to be tol. common,

26 Antrozous
One taken at Lubbock, afterwards seen at ~~Tom's Pt~~,

27 Pipistrellus hesperus
Very common,

28 Eptesicus fuscus
Common, Several taken,

29 Lasiurus — Said to occur

Chas. X Notes

30: Left Ramshaw Meadows & went to W hitney Creek where we camped & took the old crater on a small meadow.

July 6: Left the crater meadows & went down the creek to W hitney Meadows
12: arrived at Mt. Corcoran
13: Left for Mt. W hitney & camped at Crabtree Meadow on new W hitney creek about 5 miles from the base
14: Ascended Mt. W hitney
15: Returned to our camp at W hitney Meadows.

The Creek above Crabtree Meadows consists of a chain of four small lakes & several ponds above them. Pinus murrayana follows them meadows to the base of the Mt. perhaps 1200 ft. where they form the timber line with P. balfouriana on the hillsides a little higher. They become dwarfed & prostrate while the foxtail pine keeps its characteristic habit even at timber line as a rule. On the ridges the forest is formed entirely by the foxtail but about meadows the tamarack is always found. On Rock Creek at the crossing which is about 9000 ft. Juniperus occidentalis was common as were also Artemisia Sambucus, Pteris aquilina Sarcodes etc. Above timber line on W hitney were seen a Ribes with slender spines, Symphoricarpos, a yellow aster (a small yellow one very like Kalmia & white Gilia etc. (Crow at 14,000 ft. maximum.)

Arctomys were common above timber line as the burs & tracks were seen in the snow drifts. Zamias alpinus common above timber line.

Spermophilus elongatus — One seen above timberline & several at Crabtree Meads.

Microtus dukeri — Common on the meadows above timberline.

Thomomys — a few above timber line, common at Crabtree Mead.

Lepus — two tracks seen on W hitney Creek, hills found on top & many a side of Mt. Corcoran.

Ochotona — two signs seen on W hitney, a few pikes seen on Mt. Corcoran.

The birds about Crabtree Mead & above were chiefly Leucosticte, Pipilo, Junco & Hemo Finch.

17: Started for Long Canyon & camped at Ramshaw first night.
18: Made a camp near head of Long Canyon & opposite Dry Meadow.
22: Moved down the canyon to the Hot Springs
Aug 3: Went to Monache Meadows & camped at the Soda Springs.
4: Left Monache Meadows & camped at Ramshaw M. first night,
5 Camped at lower lakes at head of Big Cottonwood creek at timberline.
10: Left Big Cottonwood Lakes & went down to Lubbins Ranch.
18 Went to Jones Pines & stopped one night at Juliens Ranch.
19 Camped at Station.
20 Ascended Dog Mt & camped on the summit.
21: Went down to Spears Meadow & camped.
23: Went down to Salinas Valley & found an Indian, one Whitman & some children. Whites said to be family common in Salinas Valley, near Soledad.
Hot mineral bloomy nearly all day.
26: Left Bennidge Canyon & camped on summit at head of Cranky Canyon
Sept 1: Left the summit & camped at Railroad Station.
3: Left the R.R. Station & camped in a house at Long Pine.

Reptiles of Long Pine

1 Callisaurus ventralis — a few seen but not common.
2 Sauromalus ater — Said to occur in the Alabama hills sparingly.
3 Uta stansburiana. Common.
4 Sceloporus biseriatus — Common
" magister — Not rare, seen commonly about old bat nests & large rocks.
5 Phrynosoma platyrhinos — Common,
6 Crotalus lucifer — Abundant,
7 Bascanion flagellum — Common, several taken
8 Pituophis c. deserticola — Fl. Com.
9 Thamnophis hammondi — A large one taken at the river. No others seen
10 Crotalus tigris — A few seen, Range up to lower edge of Pinyon belt in Sierras.
11 Chilomeniscus stramineus — One taken near Olancha & tracks of several others seen in loose sand near Dulatz,
12 Bascanion laterale — One seen in Owens Valley
13 Eumeces skiltonianus one taken " " "

Vegetation of Long Pine,

1 Rhamnus pursh. Common along the creek,
2 Ceanothus — a large species common the creek in thickets
3 Rosa — common forming thickets
4 Baccaris — common
5 Artemisia tridentata — Abundant forming thickets near the river
6 Fraxinus coriacea — Common near Tulebeins
7 Betula occidentalis — Comm on the Long Pine & Carroll Creeks
8 Salix nigra — common at the River
9 " laevigata " " creek
10 Populus fremonti — common
11 Pinus monophylla — " on the foot hills down to 5,500 ft.
12 Sambucus — a few seen along the creek,
13 Clematis — Abundant in creek
14 Opuntia echinocarpa — Common
15 " bassalaris — "

Manuals of Big Cottonwood Meadows

1 Equisetum alkalinum —
Several taken. Fol. common, seen chiefly in Pinus murraygana forests.
2 Juncus fratus —
Common on a south slope exposure in Cercocarpus + Cercocarpus growths. Evidently near upper limit of Juncus occurrence in this region. Not seen below mouth of Pinus murraygana belt.
3 J. m. Pinus murraygana — Abundant everywhere especially on granite boulders to which environment their pale colors fit them.
4 Spermophilus chrysodeirus — Common everywhere
5 Arctomys flaviventer — Common on rocky hillsides where they make their home in boulders + feed on the meadows by which they also dig burrows evidently to hide in if occasion to hibernate is not off. Note a short whistle
6 Pronogeus v. gambeli — a few occur on south hillsides in sage brush + above loop. Evidently near upper limit
7 Microtus drummondii — Abundant in the meadows, especially about willows + brushes
8 Thomomys talpoides — Abundant in the meadows + hillsides
9 Lepus campestris — One taken. Rather seen in Round Valley.
10 Canis ochropus.
One taken. Tracks not common.
11 Vulpes vulpes — One + few tracks seen

12.

Trees of Big Cottonwood Meadows.

1 Ribes (yellow flow. no spines) Common on hillsides.
2 Symphoricarpus — " " "
3 Artemisia tridentata " " " + flat
4 Arctostaphylos " " "
5 Cercocarpus ledifolius " " "
6 Castanopsis chry. Not common, scattered on hillsides.
7 Salix argutea — Common in meadows + along streams
8 Pinus murraygana — Most abundant pine near meadows
9 P. balfouriana — abundant above murraygana on hillsides,
10 P. flexilis are seen on hillsides near camp
11 Juniperus occidentalis — a dwarfed one seen below camp.
12 Holodiscus discolor (Spiraea) Common along Hobbett Trail at junction where it crosses little Cottonwood creek
13 Basilima millifolium — Abundant on little Cottonwood Creek + Hobbett Trail in bloom in middle of August. Leaves finely dissected. Achillea + strong scented.
14 Pinus jeffreyi — a few near camp, abundant a little from little Cottonwood Creek on trail.
15 abies concolor — Common about little Cottonwood + below in Black Pines reaches upper edge of Pinus belt.
16 Pinus flexilis — abundant at little Cottonwood crossing

Mammals of Ramsbottom Meadows.

1 Odocoileus hemionus – Tracks said to be seen on the hills & one buck seen by a voyeur.

2. Sciurus d. albo. Several taken & others seen in P. murrayana timber.

3 Tamias m. alpinus – 9 few seen.

4 " frater – Several seen at Marlow

5 Spermophilus chry. abundant,

6 arctomys flav. Very " in the rocky hills near the meadow.

7 Microtus dukeri & few runways & holes seen near the river (sorex-fodx).

8 Thomomys alpinus – Abundant,

9 Lepus angusii? – ~~a few~~ Two cotton tail seen by S.C.

10 L. campestris – Pills common on sandy flats but they have evidently gone up higher at this season,

11 Felis concolor – Tracks reported.

12 Canis ochropus – Several seen,

13 Vulpes necator – One taken. Few tracks seen,

14 Ursus americanus – One seen by Marlow.

15 Taxidea – One killed by L. Shepherd last year.

16 Mephitis frenata – One shot, no others seen.

Trees of Ramsbottom Meadows

1 Ribes – Common, on hills,

2 Symphoricarpos – "

3 Artemisia tri. " on south exposures

4 Arctostaphylos " hillsides,

5 Castanopsis – Not common,

6 Salix arguta – Abundant on streams,

7 Populus trichocarpa – a few seen at north end of meadow high up.

8 Pinus murrayana – Abundant about meadows.

9 P. bolanderiana – Common on hills

10 P. ponderosa – A few on south slopes

11 Juniperus occidentalis – Abundant at head of meadow,

Reptiles of B.C. + Ran. Mts

1 Sceloporus graciosus – A few seen on granite rocks in Ramsbottom.

2 Thamnophis elegans – A small one taken at Big Cottonwood Meadow

Mammals of Crater Meadow (Hoodoo)

~~Same as Babcock +~~

~~Peromyscus t. gambeli — One taken.~~

1 Sciurus d. alb. One taken Not common,
2 Tamias r. albiventris — Abundant,
3 " fraterculus — Nearly as common as the last,
4 Perognathus flav. Common,
5 Cratogeomys fum. Abundant in the lava beds
6 Peromyscus t. gambeli — One taken on Arkansas hillside
7 Microtus drummondi — Abundant,
8 " montanus — One taken in willow thicket — rare,
9 Thomomys alpinus — Abundant.
10 Erethizon epixanthum
One taken. Bark eaten by them is carried off quantities. Pines numerous. Also saw their work abundantly in creek bottoms — was crater & new burrows,
11 Lepus campestris — a few old tracks seen
12 Canis
One taken. Common,
13 Vulpes necator " Taken.
14 Mustela ~~g~~ taken by Grant & another seen,
15 Lutra canadensis — Several taken in swamp
16 Neotoma p. monticola — Common in the swamps & grassy ridges,
17 Reithrodontomys — a few seen
18 Myotis? a few small bats seen. Swamps near Lake

Trees of Crater Meadow same as at Bangham. Juniperus occidentalis very common on granite hills, also many Populus tricocarpa seen on creek

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Sept 6: Left Lone Pine at 1:00 P.M. & camped at Ranch at mouth of Cottonwood Creek.

7: Stopped at Olancha at noon & camped at Halfway Meadows that night. Struck Creosote bushes seen at mouth of Ash Creek a little below Cottonwood Creek which is evidently their northern limit on the west shore of the lake. Ash trees abundant on Ash Creek at the mouth on the lake shore. A large Salix magister seen north of Olancha. A little Yuman Olancha tree Yucca noticed which extend to west of Olancha on base of Sierras but all were small ones. A shovel-nosed burrowing snake found south of Olancha & tracks of others seen in the sand, also a sidewinder track & as seen at Owl's Burrows of Dipodomys deserti abundant. The sand flats near Olancha were covered with a heavy growth of tall gray composite bushes ("sand-wash") at Halfway another work was coming in heavy black soil & probably it was the same species as at Lone Pine, certainly not the Owens Lake species.

8: Went 30 miles south to Little Lake. Just above the lake a great deal of lava was seen to the east & a large crater seen with rocks of black lava northeast

Meadows of Whitney Meadows

1 Scirpus d. alb. – One taken – Several observed.
2 Juncus fruter – One seen above camp
3 ? alpinus – abundant. Many seen above timber line on Old Mt. W. trail,
4 ~~Elymus~~ Hordeum jubatum chev. Not as common as lower. Several caught, seen at timber line
5 Arctomys – a few seen on the meadows
6 Perognathus l. apache
One taken ~~near~~ at edge of meadows, Base, Upper limit
7 Microtus [illegible] – Abundant feeding meadows above timber line
8 Thomomys alpinus – ~~Upper~~ One taken
9 Erithizon – Many trees eaten, on trail leading to Big Cottonwood Meadows
10 Lepus campestris – One seen, Pika common, many seen above timber line on Old Mt. W. trail
11 Canis
One seen. Only a few tracks seen
12 Vulpes necator – One seen, tracks rare,
13 Sorex monticolus – One taken in swamp
14 Neosorex p. navigator. Common in swamps
15 Vespertilio – One seen at Arabis Meadows

Trees of Whitney Creek.

1 Ribes – abundant,
2 " " common at base of Mt. Whitney
3 Symphoricarpos " "
4 Artemisia tri – a single bush seen on Rock Creek,
5 Salix arg. Common,
6 Pinus murrayana – abundant a few seen at timber line on Old Mt. Whitney trail
7 P. balfouriana – abundant from timber line true,
8 ~~P.~~ P. flexilis – One seen above camp
9 Sambucus – a few seen below timber line + on Rock Creek
10 Arctostaphylos, seen on hills

Mammals of Long Canyon Hot Springs

1 Odocoileus hemionus – Two shot at Upper Camp. Another seen. Tracks fol. com. in canyon & mesquite & chinquapin brush.

2 Ovis canadensis – Some reported seen a few years ago on the rocky ridges above Indian Head Rock on Mine Hill creek.

3 Sciurus griseus – One shot & another seen. in Black & live timber. Upper limit at Hot Springs.

4 S. d. albolimbatus – Common all through the canyon in the tamarack pines.

5 Tamias [illegible]? – a few seen at Hot Springs but more lower down. Common at Upper Camp. Hot Springs lower limit.

6 T. m. alpinus – Common at Upper Camp & about Indian Head Meadows but not so low down as the Hot Springs

7 Spermophilus chrysoderus – common about Upper Camp & Indian Head Mead. but not found as low as Hot Springs.

8 S. g. fisheri – Fol. com. at Hot Springs which is upper limit.

9 Arctomys flaviventer – Comm. at Rana Vega Meadows & a few in Indian Head Mead. & near Upper Camp but do not extend as low as Hot Springs

10 Sciurus fuliginosus – One reported killed at White Meadows by a camper (Jones)

11 Peromyscus t. gambeli. Common everywhere.

12 Neotoma f. streatori – One taken at Hot Springs. No nest of sticks, but live in logs & drift wood near creek. Upper limit.

13 Microtus dutcheri – Abundant on the Meadows

14 M. mordax – Two taken " " "

15 Phenacomys alpinus – Common " " "

16 Peromyscus? sitkensis? One taken at Hot Springs. Upper limit.

17 Zapus t. alleni – One taken at Hot Springs on dry hillside.

18 Erethizon – Fresh work seen at upper camp & a little old scars near Hot Springs on branch. Probably does not extend much lower as tamarack quits here.

19 Lepus campestris – Pills seen common ridges above Upper Camp. but more about Hot Springs.

20 Canis – Two taken at Upper Camp where tracks are common. No tracks seen at Hot Springs.

21 Vulpes necator – a few tracks seen in Upper Camp

22 Ursus americanus – a few tracks seen Campers report seeing two black ones near Indian Head Rock.

23 Mustela frenata – Several taken at Hot Springs

24 " " ? – Common at Hot Springs

25 " " – One taken at " "

26 Vespertilio fuscus – Common " " "
Specimens taken at Upper Camp.

27 ? Myotis ? – One seen " " "

28 Lepus auduboni – a few at Upper Camp in creek bottom. No others seen or any runways noted.

29 Neotoma cinerea – Four taken in creek bottom, two adults & 2 yng. about logs.

Trees & Shrubs of Hot Springs Hongkong

1 Rhamnus purshi. Several seen near Hot Springs & at Upper Camp but all small bushes.
2 Ceanothus pinetorum - common on the slopes of the canyon from ~~source~~ to mouth
3 C. divaricatus Nuttall - common on the lower forming thickets.
4 Rosa - Small bushes seen at Hot Springs
5 Ribes. leaves - berry (red) common " " "
6 " " currant " " " "
7 Garrya w. flavescens - seen a little below H. Sp.
8 Symphoricarpos - Abundant on hillsides
9 Artemisia tridentata " " common " "
near Casa Vieja Meadows
10 Arctostaphylos glauca - Abundant on hillsides
11 Cornus occident. - abundant at Hot Springs but not above
12 Rhus rhombifolia " " " " but not above
13 Quercus kelloggii - Fol. com, " " " not above
14 Q. chrysolepis - Seen a " below Hot Sp, & a few seen above at 5000 feet.
15 Castanopsis chry. Abundant on hillsides
16 Salix flavescens - common at Hot Springs but not above.
17 S. argophylla or q. villosa - Com at Upper camp. & in canyon below Hot Springs
18 Populus tricocarpa - a few seen above the Hot Springs
19 Sambucus - common at Hot. Springs.
20 Prunus monophylla - a few seen below Hot. Springs
21 P. fremontii - a few seen below Hot. Springs very small trees.
22 P. jeffreyi - Abundant about H. Sp. & a few near Upper camp

23 P. murrayana - common from canyon below as Hot Springs.
24 P. balfouriana - abundant on high hillsides near Upper camp & Indian Head Mead.
25 P. monticola - a few with small cones seen on ridges above Upper Camp.
26 P. lambertiana - abundant above Hot Springs.
27 Abies magnifica - Common on trail leading into canyon & in Upper part & on way to Indian Head.
28 A. concolor a few seen about Upper Camp but very common about Hot Sp.
29 Libocedrus - common about the Hot Springs but not much above it
30 Juniperus occid. a few about the upper Camp
31 Prunus - Choke cherries abundant on the creek & above to Casa Vieja Meadows.

Reptiles of Long Canyon Hot Springs

1 - Sceloporus graciosus - Abundant, less common at upper camp. Panamint
2 - S. biseriatus - Several taken at Hot Springs
3 - Gerrhonotus panamintinus - Com. along creek in grass + abdr. to 9000 ft. 9 from mouth below upper camp
4 - Charina bottae - Three taken near creek. One seemed at dusk on path.
5 - Lampropeltis zonata - One taken at Hot Springs, only one seen.
6 - Thamnophis vagrans - Common along the creek. B.C.
7 - Crotalus lucifer - Tol. com. S.C, took 6 - all light colored with brown blotches no black ones occur - Have no clear reason which is rather strange; perhaps this form is different than the black ones of the coastal mountains except Whiting Creek

Mammals of Monache Meadows.

1 Odocoileus hemi - Tol. com in hills above Waucha Peak.
2 Ovis c. nelsoni - Formerly roamed on Waucha Peak.
3 Sciurus griseus oblitabilis - A few heard + one seen at Soda Springs.
4 Spermophilus lateralis - Abundant.
5 Tamias speciosus - Abundant about Soda Springs
6 T. m. alpinus - One seen on side of Waucha Peak, said to be common near timber line.
7 Erethizon epixanthum - Tolerably common.
8 Peromyscus maniculatus rufinus - Common in sage brush.
9 Neotoma f. streatori - Said to have been taken in a nest in a corral.
10 Microtus montanus - Runways common in the meadows.
11 Thomomys alpinus - Only a few mounds seen at head of Meadows.
12 Perodipus? - a kangaroo rat said to occur but no sign seen.
13 Erethizon - a few trees barked by this species seen in the upper parts of the streams.
14 Lepus californicus - Said to be common. Many tracks seen.
15 Lepus sp.? - a cotton-tail said to be rare at north end of Meadows. Kills seen near Soda Springs.
16 Canis - said to be common
18 V. vulpes macroura - Said to be tol. com.
19 Putorius xanthogenys - One seen near Soda Springs

20 Ursus amet. — Tracks seen occasionally, especially about Clarks Peak.
21 Mustela lucifuga — a few seen.
22 Vespertilio ? sp. Several seen.

Flora of Monache Meadows.

1 Pinus murrayana — abundant about Meadows & streams
2 P. jeffreyi — Common — fruits also Meadows
3 P. monticola — Common on ridges & sides of streams.

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of the lake & was a red crater near the road which was photographed. Most of the formation is granite except near Haiwee where sedimentary deposits of blue shale occur.

9: Crossed Salt Wells valley to Indian Wells where we camped. The whole way over the road lay through a nearly pure growth of Creosote bushes on loose granite sand. The Sierras were low here & the hills bare of pines or trees except at about 7000 ft or above. At Indian Wells there was a growth of compositae bushes at the water hole like those at Emigrant Spring.

10: Crossed the southern part of Salt Wells valley & entered Red Rock Canyon where we camped at Barrel Spring two miles above the P.O. of Ricardo. At the southern end of Salt Wells valley tiny yuccas occurred & followed down the canyon to its mouth. At the spring a few mesquite bushes were seen & Chollas were common in the canyon. The formation of the canyon is largely stratified sandstone in red & yellowish layers, nearly horizontally bedded. Lava occurs near the spring with milky & glassy quartz crystals imbedded.

11: Passed down the canyon & on to the

Mammals of Big Cottonwood Lakes

1 Ovis c. nelsoni - Said to occur rarely above timber line on the rocky ridges, Mussips seen

2 Odocoileus hemionus - a few were seen in person at head of little Cottonwood Creek.

3 Sciurus d. albo. a few heard in the Douglas pines near Long lakes.

4 Tamias alpinus - Abundant everywhere especially above timber line

5 T. speciosus - Two taken at lakes, many seen at Military camp a few miles lower down

6 Spermophilus elegans - Several seen about the lakes, not common

7 Arctomys flavi. Abundant everywhere.

8 Perognathus p. gambeli - One taken at the tent.

9 Neotoma cinerea - Common in the rock piles at timber line.

10 Microtus mordax - a few nests taken on a dry hillside at timberline in green sage brushes.

11 M. montanus - Abundant everywhere

12 Thomomys alpinus - Abundant. Many mounds seen on dry hillsides above timber line.

13 Ochotona princeps. Common in some places near timber line especially in rock jams when notes were heard. Note (quoted) 3-4 times quite like pocket mouse, often much louder

14 Lepus campestris - Signs common everywhere.

15 Felis and - Said to occur at last meadow in Little Cottonwood Meadows

16 Canis - A few tracks seen.

17 Mustela - tracks seen at mouth of lake on sand at Brown bank

18 Ursus amer. - Tracks seen Hiking in Round Valley.

19 Lasiomys [illegible] - One seen with white hairs on back, probably this form or Thomomys [illegible] Seen several times at lakes.

Trees of Big Bottom Canyon

1 Pinus balfouriana – Abundant from 5000 ft. to timber line. A few specimens over 6000 ft.
2 P. murrayana – Abundant, scattering to timber line. Many specimens 100 ft. high & 6 ft. in diameter near Camp Lotus.
3 Salix argyrea – Abundant in meadows
4 Pinus – Common in rocks.
5 Cornus pitata – Small gnarled bushes common.
6 Ribes – Abundant.

Trees & shrubs of Dusy Basin.

1 – Parrea tridentata – Abundant from Station up the west slope to 5000 ft. On east slope seen as high as Upper Basin, 6000 ft. Also common in Kaweah Palisade Valley.
2 – Pinus flexilis – Common on summits of ridges, two ft. high & spreading form of bushes.
3 – Cercocarpus – a species near the summit & almost everywhere common.
4 – Acer – Abundant from 7000 ft. on east slope. Several seen in Pine Valley on south side of Big Bottom Canyon 15 ft. high & 6 inches in diameter.
5 – Prosopis juliflora – Abundant in Palisade Valley.
6 – P. pubescens – Abundant in Palisade Valley forming open clumps & flats.
7 Acacia – Common in Palisade Valley
8 – ~~Kunzia tridentata~~ Cowania mexicana – Common near summit on west slope. Seen as low as Upper Basin. Pistils 5 – Plumose tips. Cercocarpus Becomes dispersed & spreading at Summit, 8000 ft.
9 – Coleogyne ramosissima. Common from 8000 ft to 6000 ft. on west slope.
10 Cercocarpus ledifolius. Common from 7000 ft to summit.
11 – Pinus – Abundant about springs & rocky slopes & in Upper Basin.
12 – Symphoricarpus – Common near summit.
13 – Ribes sericeum Common about rocks on Palisade Valley.
14 – Artemisia tridentata – Abundant at 6000 ft. to summit.
15 – Juniperus occidentalis – Abundant up to 9000 ft. on west slope.
16 – Pinus flexilis – Abundant up to 7000 ft. on west slope, rare on east slope common from Arrastra to Palisade Valley.
17 ~~Ribes~~ Populus (trichocarpa) common from the Arrastra down to Palisade Valley

18 Salix lasiopa Common along creeks
19 Ephedra viridis Common on mountains up to 8000 ft. summit.
20 Pinus monophylla - abundant from 6500 ft to summit
20a P. aristata - Common on summit at 10000 ft.
21 P. flexilis - common on summit on east slopes down to 8000 ft.
22 Juniperus c. utahensis Common from summit to 6000 ft. east slopes.
23 Cercocarpus ledifolius - Common to 7000 ft,
24 Opuntia basilaris - Common from base to 8000 ft. both slopes,
25 O. multigeniculata - Common from 6000 ft to summit,
26 Echinocereus Engelmanni. - Common last in bushes on mountains
27 Clematis - Common in Shepherd Creek.
28 Sambucus - Common at 8000 ft.
on east slopes
29 Ribes - Common near summit.
30 Betula occidentalis - Common south of Sperry choked with ~~etc~~ tule from where the water starts down to 5000 ft.
31 Populus tricocarpa - A grove at beginning of water in canyon south of Sperry.
32 Asclepias speciosa or Mexicana - Milkweed common at the arrastra, used by the Indians for rope, + swabs for sprinkling sheep etc.
33 Holodiscus discolor (Spiraea) Common in Pinus belt on east slopes
34 Salix ~~lasiandra~~ lasiandra - Common east species in creek at arrastra,
35 Salix Nevin Leaf bushes - Common at arrastra
36 - Basilima millefolium - Common on east slopes near summit at lower edge of Pinus flexilis, 7500 - 8000 ft. Seen also at summit
37 Polygonum - (yellow flowered) Abundant near summit forming large areas.
38 Ribes - Seen along trail in Craig Canyon at 8000 ft.

Reptiles & Amphibia.

1 Eumeces gilberti - One taken, only one seen. ~~Obliterated~~ It is evident that there are at least two species or subspecies in Calif. The red head ~~x~~ 2 stripes of coast. On the desert a ~~brown~~ tailless striped specimen seen but the unmarked red head which x 3 times as large as the coast form a ~~found~~ about Palmdale & San Bernardino Mts. The Yosemite form may range over the mts. if not the desert form would be another subspecies.
2 Callisaurus ventralis - common about bases of the mts. on the sandflats not seen on the mt. proper.
3 Crotaphytus baileyi - Seen sparingly everywhere on the mountains from base to 8000 ft. noted higher on this range than anywhere else. At the higher elevations they appeared more spanish than brownish. Two very large ones seen.
4 Sauromalus ater - Two small ones seen at the Arrastra Apparently

they extend no higher than the lower edge of the Pinyon belt.

5 - Uta stansburiana - Common near the arrastra + lower down. Not extending much above the lower edge of the Pinyon belt.

6 - Sceloporus gracious - Seen only in Beveridge Canyon in Pinyon belt in artemesia brush, apparently not extending above 8000 ft.

7 - S. biseriatus - Abundant about the arrastra + extending well into the Pinyon belt & nearly as high as the last.

8 - Phrynosoma platyrhinos - a few seen in the mouth of canyons.

9 - Eumeces skiltonianus? - Two seen + one secured in willow thicket near the arrastra - The dorsal stripes very wide averaging 3 scales of one scale row, otherwise like skiltonianus. This is a rare species + no more could be secured. Habits apparently nocturnal as they were seen about dusk only.

10 - Cnemidophorus tigris - Several seen about arrastra but not above this. Reaching perhaps the lower edge of the Pinyon belt.

11 Scaphiopelis hammondii - One taken at the arrastra, the only one seen.

12 Hypsiglena - Said to occur + considered poisonous by the Indians

13 - Crotalus confluentus - One caught in steel trap at the arrastra, the only one seen. Said to range as high as 8000 ft.

Mammals of the Grapevine Mts.

1 - Odocoileus hemionus - Said to occur rarely in winter crossing over from the Sierras on account of snow. Farther northern range they are resident.

2 - Ovis c. nelsoni - Said to occur rarely in the south part but about Wacoba common. No tracks seen.

3 - Lepus californicus - Common from a little below Pinyon belt to 8000 ft; found all three Pinyon belts + always seems a thousand feet below it.

4 - S. c. nigrensis - Seen only on summit in Pinus flexilis + P. aristata timber. Ranging from 9000 ft to summit, much less common than the last.

5 - Sciurus douglasii albolimbatus - Two taken at summit 8500 ft, in Pinus flexilis timber - Range + habits like that of last. Rare, not often seen, probably common farther north as one camp at summit was at the southern end of Pinus flexilis + P. aristata.

6 S. lateralis - Abundant from summit of ranges to base; deep ravines with beds of Ref. mahogany + pinyon

7 - Peromyscus crinitus? Abundant about arrastra + probably entire lower part of Pinyon belt.

8 P. ter. agilis – Abundant from base to summit,
9 – P. treii? – Common on summit from 8000 ft + above not noted in Jurisdicta but abundant in P. flavifrons & P. hirsuta – Uinta.
10 – Neotoma desertorum – Common from base to summit, but more common below P. flavifrons.
11 – Peromyscus crinitus – Common on ridges + in upper part of Pinyon belt from 8000 ft to summit,
12 – Thomomys – One taken mounds common on summit + upper part of Juniper belt from 8000 ft. to summit. Skins from taken in Panamints,
13 – Perognathus formosus – Burrows seen at 5000 ft + below,
14 Perognathus sp. indeterminus – Common on summit in flats of Artemisia at 8000 ft, but not seen elsewhere
15 Lepus arizonae? One taken & a form seen near summit from 8000 ft. below,
16 L. californicus desiderensis – A form seen on summit in artemisia flats. Probably range from base to summit,
17 – Helisc. desert[illegible] – A pup. was found dead near arrastra – Said to be abundant to the south in canyons,

18 Canis mearnsi – Said to occur, none seen or heard,
19 Urocyon cin. ocalli? Two taken tracks not rare in Juniper belt & above,
20 Bassariscus – Said to occur about tunnels in Brenda. One seemed by Mr. Spears & kept as a pet. Said to be common in Juniper & Independence. No tracks seen,
21 Spilogale p. [illegible]? Six taken at arrastra – Said to be common at R.R. Station where tracks were seen,
22 – Mustela – Two taken at arrastra – No others seen,
23 – P. pistillus abundant at arrastra – Lower edge of Pinyon belt. No tracks seen above 7500 ft.

Mohave Plain where creosote was again the prevailing vegetation. Few yuccas occurred scattered all the way. Arrived at Mohave at 3 P.M.

12: Crossed the Mohave Plain to Willow Springs in a heavy south wind & stopped for noon. Camped at a watering place for cattle at sundown about 4 miles north of Fairmont & 15 east of Neenach. Near Mohave found a large green colored Crotalus lucifer near the road which some one had killed. The desert to south of Mohave was covered chiefly by a growth of Creosote & the yuccas, the former stopping at Willow Springs. Below Willow Springs a marl lake soil occurred which the yuccas do not grow in or creosote either thus being confined to granitic sand or rocks. On this old lake bed Grayia was the predominating bush with a species of Atriplex. About the watering tank where we camped a large Kangaroo rat, evidently Perodipus agilis was seen & apparently reaches its eastern limit in Antelope valley which is not very desert in climate or vegetation.

13: Travelled about due west & camped a little above the lake at Quail. Between the goat ranch & Mangana the Juniper began & continued with the heavy growth of yucca as far as Mangana above which no other yuccas were seen. No rattle-tailed Spermophiles were seen above, above this yucca belt. About Quail White-oaks & Quercus sabinianas were common & these were seen all along the foothills of the Sierra Range to the east. Just above the lake at Quail the summit between the coast & desert occurs but it is a very low divide.

14: Passed up the canyon & over the summit between the Piru Creek or coast drainage & the San Joaquin or Canyada de las Uvas drainage & to a camp between Lebec & Fort Tejon. All along the head waters of Piru Creek near Quail Yuccas whipplei were seen on the hillsides with Juncus chrysocephalus & G. lobata. Above Lebec a little way some G. resiliens were seen.

20: Left Lebec & passed down the canyon to Bear Station which is about 7 miles out on the Bakersfield plains. Half way down the canyon Buckeyes, box-elders & poison oak became common. At Bear Station we caught many Perognathus longimembris which were the only mammal on the plains, many pockets collected filled & a few for bait, grain which is the common grass of the country.

22: Left the station & returned to a camp near the mouth of Canyada de las Uvas. The Crotalus cerastes silus were common on the plains south of the house & lived in Perodipus & Sperfilus burrows. This stomach contained grasshoppers & the species are less common than the desert form. The coloration of the underside of the tail & thighs fortunately was bright yellow in both sexes. They grew much slower than the desert form & the adults were buried like the young of the C. resiliens. One hound took them & a few lizards seen.

26: Went down again to Bear Station for Vulpes. Caught also, a few Perodipus & Sperfilus & one Lepus & one Lepus sabinianus. Found a dead Vulpes

near water in the cañon below the station. One spring a trap took some Perodipus ont. The rangers say they are abundant on the Carrizo Plain but rare about Pine Station.

28: Left the station & passed up the cañon to Taylors ranch at Castac Lake where we camped. Caught Neotoma f. stuartina in Ribes meyeri thickets where they were common. Perodipus abundant but darker & smaller than at Pine Station. Lepus audubonii common. East of Castac Lake the brush is very dense & consists of Adenostoma fasciculata, Garrya, Quercus wislizeni & Q. chrysolepis, Sambucus & Q. californica. Bear sign abundant but none seen. A fine grizzly seen in Taylors cañon near shack S.C. saw a Urocyon & two wild cats. Coyote tracks abundant & often heard. One Jack rabbit seen. In the chamiso brush east of Castac many small patches of Lepus circumscriptus seen. One Peromyscus longimembris taken.

October 3: Left Taylors & went up the cañon to Lockwood Valley where we camped near the Pine Mine. In the cañon above Castac were seen Prunus fasciculata common, Fraxinus dipetala common, Quercus dumosa common, Artemisia everglotes, Yucca whipplei in solid patches like a planted field. Sambucus common. The pinyon was met a little above Castac & yellow pine a little further. Around the pinyon were solid forests. In a few canyons a Juniperus & Sequoia were seen. Lockwood Valley was filled mostly with sage brush & on the edges with Quercus wislizeni & pinyon, a small clump of willow common on the creeks.

Trees are burned toad, P. boreoalis & the road below Castac, Parus a. sp. Crotaphytus wislizeni; Storm Mts. Sturnella neglecta. Yerba santa abundant a little above Castac.

6: Returned to Taylors. On road saw some Crotaphytus wislizeni. At Lockwood Valley caught many Perognathus fasciatus, Perodipus agilis, Peromyscus tor. & P. boylii & Neotoma fuscipes streatori. One Bassariscus taken. Fasciata common in pinyon timber. A few bear tracks seen near the Coon Saw mill. Coyotes heard often. Many foxes reported common. From Taylors we trapped along the stream at the fork, caught on Sorex, several Bassariscus stamps & Microtus.

8: Left Taylors & went to Bailey's Ranch on Pine Creek about 6 miles Southwest of the road & camped at the fish pond below the house, a little below the stage road we found the yuccas in the valley & Quercus brushes with sage & old man. Coast oak & gray manzanita common. A few canyons with Pinus sabiniana seen. Chamise brush abundant on hills.

12: Left Bailey's & went to Newark where we camped at the store. Next day went hunting antelope but saw no sign. Saw the yuccas until we neared Jack Albertz grain fields.

13: Moved on to a house on J. Albertz field & camped. Set out a few traps & caught Perognathus, gambeli & Perodipus ag-stadoni & two Perognathus longimembris & one mutilated Dipodomys w. sterilis. It appears that all the sp. of the subgen

Mammals of Fort Tejon & vicinity

Cervus c. occidentalis:
Formerly abundant on the San Joaquin & adjoining foothills of the Tejon Pass, a few still are found a Mr. Henry Fullers Ranch near Bureau Vista Lake where they are protected. Said to bear 15 or 20th and calves in shade trees every year.

2: Odocoileus calif. — Common in the Tejon Pass & hills generally. A form known as Crossbreed occurs rarely which has stunted horns spreading out a few inches & flattened, due to a disease perhaps or an injury when first budding forth.

3: Antilocapra americana
At one time abundant on the San Joaquin & Antelope valley, coming into the mountain passes in winter & during the fawning season. The herds undertake migrations from the San Joaquin & Antelope valley through the Tejon Passes. Now resident when found, A small band of 7 said to occur near Tejon Ranch House at Mouth of Tejon Canyon another small band near Bureau Vista Lake, a few Carrizo Plains & a band of about 20 - 30 on Tejon Ranch just north of Neenach. Abundant to 87. Herds of several hundred common. Formerly common in the hills above Bailey's ranch in winter & during fawning time, no gradually become extinct altho still protected by law.

** The bucks are said to be too small to protect the does & young from the coyotes which harass them continually.

4: Ovis cervina nelsoni —
Mt. Sheep said to occur on the Sequoia Creek but now very rare.

5: Sciurus griseus — Not common. A few occur in the Pines & live oaks, same as Tejon Mts, Mt. Pinos & near Bailey's Ranch.

6: Tamias merriami?
Abundant in Pinyons in Tecknood Valley; a few seen about Tejon & Castac Lakes, Said to occur about Bailey's also. Found feeding on Pinyons & living often in old [illegible]

7 —

8 — ? peromyscus nelsoni — Common about Fort Tejon living on the level plains in grain fields.
* seen only rarely in vicinity of Castac Lake in afternoon, not at all early like S. lepidus.

9 — S. lepidus. Abundant in Antelope valley but not found in the hills as usual, none seen west of Manzana altho Castac Lake appears to extend to Bailey's

10: S. grom. fisheri — Abundant everywhere as high as 5000 ft in Tecknood Valley most abundant in Tejon Mts. Breeding in

acorns of White - oaks. Golden eagles Red-tailed Hawks feed chiefly on them.

11- Peromyscus eremicus gambeli — Abundant everywhere.

12 P. boylii found only in hills in the Chaparral & P. maniculatus. Taken at the fort & Tehachapi Valley.

13: Rhithrodontomys longicaudus. common about creeks & meadows near fort & in Tehachapi Valley.

14 Neotoma sp. f. stephensi abundant in the hills & splendid nest in the Yucca in Antelope valley. Not found below the oak zone in the San Joaquin side. Nest often places in thickets of Ribes rengeii. At Tehachapi Valley they were gathering pinyons.

15 N. sp.:
Common at mouth of canyons & dens in rock piles & holes of banks, usually above the Birchleaf & buck-brush zone.

16 Microtus calif.
Abundant about the fort & at Bailey's.

17 Thomomys -
Common along streams & in meadows in the mountains, more latter in the San Joaquin.

18 Perognathus m. inflatus - One taken at Boyd Station. Not abundant as to quantity

19 - Perognathus neg. streatori - Abundant at San Joaquin near Boyd Station and at three other points in Antelope Valley, perhaps not from & desert but are agilis as they are darker & smaller than those from Boyd Station.

20 Perognathus parvus fasciatus abundant in Tehachapi Valley, one taken at Naples & Bailey's. Perhaps longimembris in this form unless the type specimen still exists as it occurs at the fort while the latter is not found north of San Joaquin.

21 D. longimembris - abundant at Boyd Station, a few taken near mouth of C. de los Uvas but mistaken for pricei.

22: P. cal. disjunctus - a few taken at the fort & at mouth of canyon at Bailey's

23 Lepus sp. abundant in Mts.

24 L. sp. ? - seemed to occur near the

fort. Sage seen near Castac Lake, Sand
& scrub at Bailey's.

25 - L. californica - Seen near the fort &
at Castac. One shot at Bailey's. Sage
seen at Tejon.

26 Felis c. oregonensis Puma Occasionally
near the fort & about Bailey's

27. Felis r. calif - Abundant. Two
seen near Castac. Said to be common
in hills in winter when driven
down from the higher Mts.

28 Canis olympus - Abundant
everywhere, Food largely cherry
& juniper berries.

29: Vulpes macrotis - said to
occur near Bean Station where
tracks & one skull were seen.
Abundant in Antelope valley as far
west as Mojave. Said to be
abundant on Cajon pass & near
Bernardino Valley.

30 Urocyon cin. calif. Said to be
abundant about Bailey's & near
at Castac.

31: Mustela nivalis - Formerly occurred
now extinct except Belopus at
Tejon.

32 Mus sp., Still found at Tejon Pass
in mts north of Castac Lake. Only
track seen at Castac Lake,

33 Procyon l. hernandezi - Abundant
on creeks about Fort & on Piru

34 Taxidea - Said to occur
but common nowhere. Reported
from Mrs Slater's, fort & Bailey's

35 Mephitis - Said to occur
at Fort & at Bailey's common
thru Spilogale

36 Spilogale - One taken below
fort. Said to occur at Bailey's

37 Putorius & allotropus. Common at
fort & at Bailey's where a dead
one was seen,

38 Lepus sp. - Abundant at Fair &
at Bakersfield

39 Scapus — Subtrocanter ca
fort & at Baileys. Burnaps mine on
Foxhound Valley

41 Calyx p. parts;
Taken at fort in a bone where
they came to feed on rotting victuals.

41 Nuphis calix. Taken at Fort in a
bone,

42 N. longipes — Also detected Bony
Station in bone

43 P. Apistalis — abundant at
mouth of Cr. & L. Bens & at
Baileys not seen above 3 000 ft.

44 Vespertilionis
Taken in bone near the
fort,

45 Myotinus
Abundant in the fort. One
seen at Carlon,

Reptiles of Fort Tejon Vicinity.

1 Clemmys marmorata
Seen in the pond at Bailey's.

2. Crotaphytus wislizeni -
Seen in Lockwood Valley & Cuddy Canyon.

3 C. nitus - Common on San Joaquin north of Box Station living in Pendejos burros & very wild. One taken near the mouth of the Canyon de las Uvas. They live only on the open grassy fields not entering the foot hills back. Their exposed habitat accounts for their shyness. Stomachs contained grasshoppers. All the adults were bright yellow underneath of tail & back of hind legs & cross barred above with bars the upper of C. wislizeni of which the coloration is an arrested stage.

4 Uta plantaurus - Common everywhere in the hills & on the plains near Box Station. In Lockwood Valley they were conspicuously striped.

5 Sceloporus graciosus - One seen in Lockwood Valley.

6 S. biseriatus - Common near the fort on oak trees & fences. Rare in Lockwood Valley perhaps on account of cold. Often seen at Bailey's.

7 S. magister - Seen in Antelope valley about the tree yuccas near Mojave.

8 Phrynosoma ~~[illegible]~~ - Often seen at Box Station but not common. 9 often taken in Lockwood Valley which were # brown above & bright yellow below.

9 Gerrhonotus scincicauda - One taken at the fort & another agone at Bailey's

10 - Xantusia vigilis - Common in Antelope valley under the yuccas Some taken at Bailey's under yuccas which is their western limit here.

11 Crotalus - Said to occur at Bailey's but Sloan too late for us to secure any.

12 Tantilla -
Said to occur at the fort.

13 Bascanion f. frenatum One taken at Box Station

14 Pituophis catenifer One taken at Box Station & another at the mouth of the canyon.

15 Crotalus lucifer. One taken at mouth of Canyade & a larger often are found in wood near Lockwood.

Flora of Plumas Co.

1 Argemone platyceras - Common at Taylors at Castac Lake.

2- Bromus arbreus - Common at mouth of Canyada + at Bailey's

3 Frumtodendron - Abundant in Eddy canyon up to about 4500 ft. Seen in hills east of Castac.

4 Rhamnus pursh - Common in Canyada o. l. trees + in Lockwood Valley + Pine Creek

5 Ceanothus cuneatus - Common in Eddy Canyon + above Castac Lake + Lockwood Valley

6 Vitis calif. Abundant in Canyada

7 Aesculus calif. Common in part of Canyada from about 3500 to valley.

8 Rhus diversiloba - Common in Canyada + in Pine Creek.

9 R. ovata - Common above Taylors + in Eddy Canyon.

10 Prunus ilicifolia - a few seen in Eddy Canyon.

11 Prunus demissa - Common below Baileys

12 Adenostoma fasc. Abundant east of Castac + on Pine Creek.

13 Purshia glandulosa - Common in lower part of Eddy Canyon.

14 Cercocarpus parvifolius - Abundant east of Castac Lake + in Lockwood Valley + in Eddy Canyon

15 Rosa calif. Common at Baileys

16 Ribes menziesii Abundant above Taylors + in Eddy Canyon.

17 Ribes - A few seen at Taylors

18 Microsepalus macrocarpa - Ofhis Arcuata abundant at Taylors + in Canyada.

19 Opuntia basilaris - a few seen north of Baileys in rocky belt.

20 Yucca whipplei - Abundant in Eddy Canyon + east of Castac Lake.

21 Sambucus glauca - Abundant in Canyada at Taylors in Eddy Canyon + Lockwood Valley,

22 Artemisia tridentata - Abundant about Post + as high as Lockwood + as far as Bailey's

Dr Lookwood in fine young fields on thickets.

23 Old man-comp. abundant below last in distribution

24 Arctostaphylos glauca - common in Cuddy canyon, near the foot + in Lockwood. Green leaves.

25 A. - gray leaves
Pinnacle comm.

27: Asclepias [illegible] common from Neuadi to the foot + on slopes near Pozo Station.

28: Eriodictyon [illegible] common in Cuddy Canyon + Pinnacle.

29 Adenostoma nebroides - Common on Pozo slopes.

30 Nicotiana attenuata - common on Taylor.

31 Stanleya elata - common in arroyo below valley near Willow Spr.

32 Castor oil. Common at mouth of canyons + about Pozo station.

33 Phalacroseris racemosa - common below Bailey on Pinnacle, not seen above 2700 ft.

34 Juncus [illegible] - common about the foot.

35 Dw. [illegible] - abundant down the foot + down to 2500 ft. + to edge of Arroyo valley.

36 D. dumosa. Common about Bailey

37. D. variegata abundant forming thickets.

38 Salix nigra - abundant in canyons

39 Sally drop to main leaves, seen in Lockwood only.

40 S. albescens - common - Bailey

41 P. californica fremontii - common in canyons + Cuddy Canyon,

42 Yucca arborescens - a few seen above Bailey, absent below in thick grass,

43 Y. whipplei - abundant in canyons from Bailey to [illegible] valley, + up Cuddy canyon to Lockwood Valley, In Cuddy canyon forming pure fields of several acres extent.

44 Ephedra viridis - Abundant from Castor Lake up Cuddy Canyon to Lockwood Valley,

45 P. pinus jeffreyi = Common on Jeffrey's Mt. Pines. Seen as low as 3500 in Cuddy Canyon as stunted trees.

46 - P. monophylla - Abundant from Cuddy canyon to Inwood forming almost forest in this region. The ~~trees~~ black pine does not form a forest below 6000 ft. A few are about Cottonwood & Bailey's.

47 P. sabiana - Common from Cuddy as far west as Castac & Bailey's

48 Pseudotsuga macrocarpa - A few are seen on the foot × in Cuddy Mt. in vicinity of Jeffrey Mt.

49 Juniperus calif. Abundant from Tehachapi west to Pear Station × as high as Tejon and Cuddy Valley, Common near Bailey's.

San Joaquin occurs in the western part of Antelope Valley, near pine grove in sand dunes were seen large burrows in edges like those of Perodomys deserti, perhaps Perognathus penicillatus would also occur here. Tracks of Vulpes macrotis were seen but have been covered by drift. Most colonies shot at driven away.

15: Shot two adults ♀ containing 2 ♂♂ two months old & a buck. A band of about 12 seen just north of the house. Another band of 20 said to occur near Willow Springs. The bucks had shed their horns recently the ♀s just dropping off on one side, the bucks roping & some bucks growing just starting. Rutting season evidently some time in July. Above this only seen near here they are said to increase but slowly due to coyotes. Two ~~deer~~ fawns taken away from coyotes this year, when were killing them. This buck range from cottonwood Creek to the edge of the Mojave Desert

which is all an open plain of bunch-
grass & alfilaren. They water in the
creeks at edge of valley bordering
Tehachapi Mts. Droves are the
normal number. When frightened
or much hunted they leave the
plains & seek shelter in the
yucca groves to the east not
again returning for several days
about to have been killed or found
dead by Indians since the
law has given them protection.
17 Left Neenach & camped at
Mangum.
18: Arrived at Lancaster. Burrows
of Entypodomys deserti common here.
Vaqueros report no water closer
Willow Springs.
21: Went to Palmdale, 4 little way
out from Neenach Creek but saw
encamped but at Palmdale they
were packing up again. Most of the
vegetation consists of Grayia Atriplex (gone
bush) & Yucca - composite, two grass &
Opuntia etc. (cholla)
22: Breakfast & left for Los Angeles not
returning.